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PTO/SB/21 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

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TRANSMITTAL FORM <i>(to be used for all correspondence after initial filing)</i>	Application Number & Confirmation Number	10/658,356	2103
	Filing Date	9/9/2003	
	First Named Inventor	Spilker, Jr.	
	Group Art Unit	3662	
	Examiner Name		
Total Number of Pages in This Submission		Attorney Docket Number	RSM047001

ENCLOSURES (check all that apply)		
<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Assignment Papers (for an Application)	<input type="checkbox"/> After Allowance Communication to Group
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	Richard A. Dunning, Jr.
Signature	
Date	6/12/04

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I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450 on this date:			
Type or printed name	Diane Dunning	6-14-04	
Signature		Date	6-14-04

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Spilker, Jr. et al. Art Unit : 3662
Serial No. : 10/658,356 Examiner :
Filed : 9/9/2003 Conf. No. : 2103
Title : POSITION LOCATION USING BROADCAST DIGITAL TELEVISION
 SIGNALS COMPRISING PSUEDONNOISE SEQUENCES

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §§ 1.56 and 1.97-98

Pursuant to the provisions of 37 CFR §§ 1.56 and 1.97-98, enclosed herewith is a modified form PTO-1449 listing documents for consideration by the Examiner.

The filing of this Information Disclosure Statement shall not be construed as a representation regarding the completeness of the list of documents, or that inclusion of a document in this list is an admission that it is prior art or is pertinent to this application, or that a search has been made, or as an admission that the information listed is, or may be considered to be, material to patentability, or that no other material information exists, and shall not be construed as an admission against interest in any manner.

This Information Disclosure Statement is being filed:

- ☒ within three months of the filing date of the application, or date of entry into the national stage of an international application, or before the mailing date of a first office action on the merits, whichever event last occurred;
- ☐ before the mailing of a first official action after the filing of a request for continued examination (RCE) under 37 CFR § 1.114;
- ☐ after three months from the filing date of this national application or the date of entry of the national stage in an international application, or after the mailing date of the first official action on the merits, whichever event last occurred, but before the mailing date of the first to occur of either: (1) a final action under 37 CFR § 1.113; or (2) an action that otherwise closes prosecution in the application, and:

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450.

6-14-04
Date of Deposit

Diane Dunning
Signature

Diane Dunning

Typed or Printed Name of Person Signing Certificate

- ☐ attached hereto is the fee set forth under 37 CFR § 1.17(p) for submission of this Information Disclosure Statement under 37 CFR § 1.97(c); OR
- ☐ Applicant certifies pursuant to 37 CFR § 1.97(e) that:
 - ☐ each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement; OR
 - ☐ no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing this certification after making reasonable inquiry, no item of information contained in this Statement was known to any individual designated under 37 CFR § 1.56(c) more than three months prior to the filing of this Statement;
- ☐ before the payment of the issue fee but after the mailing date of the first to occur of either: (1) a final action under 37 CFR § 1.113; or (2) an action that otherwise closes prosecution in the application, and:
 - ☐ Applicant certifies pursuant to 37 CFR. § 1.97(e) that:
 - ☐ each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement; or
 - ☐ no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing this certification after making reasonable inquiry, no item of information contained in this Statement was known to any individual designated under 37 CFR § 1.56(c) more than three months prior to the filing of this Statement; AND
 - ☐ attached hereto is the fee set forth under 37 CFR § 1.17 (p) for submission of this Information Disclosure Statement under 37 CFR § 1.97(c); OR
- ☐ after the payment of the issue fee. Applicant requests that the information contained in this Information Disclosure Statement be placed in the file according to 37 CFR § 1.97(i), although the information may not be considered by the USPTO.
- ☒ This application relies, under 35 U.S.C. § 120, on the earlier filing date of prior application No. 10/210,847, filed on 07/31/2002, and the documents cited therein are hereby referenced, but are not required to be provided in this application under 37 CFR § 1.98(d).
- ☐ Each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application, and the communication was not received by any individual designated in 37 CFR § 1.56(c) more than thirty days prior to the filing of this Information Disclosure Statement. 37 CFR § 1.704(d).

Applicant : Spilker, Jr.
Serial No. : 10/658,356
Filed : 9/9/2003

Attorney's Docket No.: RSM047001

Page: 3

☒ Applicant submits that no fee is required for the consideration of this Information Disclosure Statement.

Consideration of the listed documents and favorable action are respectfully requested.

Date: _____

Law Office of Richard A. Dunning, Jr.

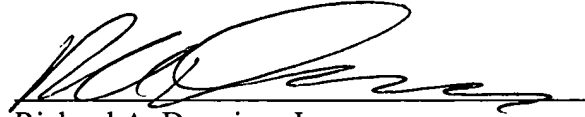
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Respectfully submitted,



Richard A. Dunning, Jr.

Attorney/Agent for Applicant(s)

Reg. No. 42502

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Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 2

Complete if Known

Appl. No. & Conf. No.	10/658,356	2103
Filing Date	9/9/2003	
First Named Inventor	Spilker, Jr. et al.	
Group Art Unit	3662	
Examiner Name		
Attorney Docket Number	RSM047001	

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	A	5,157,686		Omura et al.	10-20-1992	
	B	5,166,952		Omura et al.	11-24-1992	
	C	5,920,284		Victor	07-06-1999	
	D	6,078,284		Levanon	06-20-2000	
	E	6,107,959		Levanon	08-22-2000	
	F	6,137,441		Dai et al.	10-24-2000	
	G	6,317,500	B1	Murphy	11-13-2001	
	H	6,373,432	B1	Rabinowitz et al.	04-16-2002	
	I	6,374,177	B1	Lee et al.	04-16-2002	
	J	4,555,707		Connelly	11-26-1985	
	K	5,045,861		Duffett-Smith	09-03-1991	
	L	5,481,316		Patel	01-02-1996	
	M	5,510,801		Engelbrecht et al.	04-23-1996	
	N	6,094,168		Duffett-Smith et al.	07-25-2000	
	O	5,774,829		Cisneros et al.	06-30-1998	
	P	5,952,958		Speasl et al.	09-14-1999	
	Q	4,894,662		Counselman	01-16-1990	
	R	5,398,034		Spilker, Jr	03-14-1995	
	S	5,323,322		Mueller et al.	06-21-1994	
	T	5,504,492		Class et al.	04-02-1996	
	U	5,593,311		Davies et al.	09-14-1999	
	V	2003/0122711		Panasik et al.	07-03-2003	
	W	4,652,884		Starker	03-24-1987	
	X	6,433,740		Gilhousen	08-2002	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
	Y	GB	2 222 922	A	Spectronics Micro System	03-21-1990		
	Z	GB	2 254 508	A	Mitchison, et al.	10-07-1992		

Examiner Signature

Date Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

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				Appl. No. & Conf. No.	10/658,356 2103
				Filing Date	9/9/2003
				First Named Inventor	Spilker, Jr. et al.
				Group Art Unit	3662
				Examiner Name	
Sheet	2	of	2	Attorney Docket Number	RSM047001

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	AA	PARKINSON, B.W., et al., "Autonomous GPS Integrity Monitoring Using the Pseudorange Residual," <i>Journal of the Institute of Navigation</i> (1988), Vol. 35, No. 2, pages 255-274.	
	AB	RABINOWITZ, M., "A Differential Carrier Phase Navigation System Combining GPS with Low Earth Orbit Satellites for Rapid Resolution of Integer Cycle Ambiguities," <i>PhD Thesis for Department of Electrical Engineering, Stanford University</i> (Dec. 2000), pages 59-73.	
	AC	SPIPKER, JR., J.J., "Fundamentals of Signal Tracking Theory," <i>Global Positioning System: Theory and Applications</i> (1994), Vol. 1, Chapter 7, pages 245-327.	
	AD	VAN DIERENDOCK, A.J., "GPS Receivers," <i>Global Positioning System: Theory and Applications</i> (1995), Vol. 1, Chapter 8, pages 329-407.	
	AE	LI, X., et al., "Indoor Geolocation Using OFDM Signals in HIPERLAN/2 Wireless LANS," 11 th IEEE International Symposium on Personal Indoor and Mobile Radio Communications, PIMRC 2000, Proceedings (Cat. No. 00TH8525), Proceedings of 11 th International Symposium on Personal Indoor and Mobile Radio Communication, London, UK, Sept. 18-21, pp.1449-1453, Vol. 2, XPO10520871, 2000, Piscataway, NJ, USA, IEEE, USA, ISBN: 9-7803-6463-5, Chapter I and III	
	AF	RABINOWITZ, M., et al., "Positioning Using the ATSC Digital Television Signal," Rosum whitepaper, Online! 2001, XP002235053, Retrieved from the Internet on 03-13-2003 at URL www.rosun.com/whitepaper 8-7-01.pdf	
	AG	EP Abstract/Zusammenfassung/Abrege, 02102666.1	
	AH	JP Abstract/ Vol. 007, No. 241 (P-232), 10-26-1983 & JP58 129277 A (Nihon Musen KK) 08-02-1983	

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